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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,864	08/18/2003	S. Craig Nelson	5500-97800	3330
35690	7590	07/26/2004	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.			YOUNG, BRIAN K	
P.O. BOX 398			ART UNIT	
AUSTIN, TX 78767-0398			PAPER NUMBER	
			2819	

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,864

Applicant(s)

NELSON, S. CRAIG

Examiner

Brian Young

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 9, 11-13 and 21 is/are rejected.
7) ☒ Claim(s) 4-8, 10, 14-20 and 22 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/22/03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,9,11-13 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fernando et al.

Fernando , et al disclose a method and apparatus for executing multiple instruction streams in a digital processor with multiple data paths. The invention is a parallel digital processor comprising a plurality of ***parallel-pipelined instruction paths***, which preferably share a common instruction memory and a common data memory. Each parallel instruction pipeline includes at least an instruction ***fetch stage***, ***an instruction decoder stage and an execute stage***. There are registers for each pipeline for temporarily storing data needed by, or generated as a result of, instructions. The architecture is capable of running in various modes, including single threaded mode, SIMD mode and MIMD mode. The instruction set includes instructions that cause the architecture to switch between various modes on the fly during execution of application software. A parallel processing architecture for a digital processor capable of alternately operating in a single threaded mode, a SIMD (single instruction, multiple data) mode and a MIMD (multiple instructions, multiple data) mode. The instruction set for the processor includes instructions for switching between modes and exchanging data between the parallel processing paths.

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FIG. 3 shows the active components of the processor core architecture for operation in the SIMD mode. Responsive to the CFORK instruction and the corresponding signal on control line 32c generated by decoder 22a, the state machine 28 issues a control signal on line 32i instructing multiplexer 21 to accept data from input line 36 from the fetch stage 20a of the **primary instruction pipeline 16**. It also issues a signal on control line 32h that activates the decoder stage 22b in the **secondary instruction pipeline 18**. The execution stage 24b also is activated via control line 34. **Secondary instruction pipeline 18 then commences to execute the code fetched by fetch stage 20a, while primary instruction pipeline 16 continues to execute the same instructions.**


At the end of this routine (i.e., when the multiple parallel instruction pipelines have completed all of the adds of the video processing routine), the code includes a CJOIN instruction. The CJOIN instruction has no effect in the primary instruction pipeline 16. The CJOIN instruction causes a CJOIN control signal to be issued on line 32f to the state machine 28. In response to this control line, the state machine 28 issues signals on control lines 32h and 32i deactivating the secondary instruction pipeline 18. Processing thus returns to single threaded mode in order to allow the primary instruction pipeline 16 to combine the results. Particularly, once back in single threaded mode, the primary instruction pipeline 16 can execute MOVE BtoA instructions to read out the data from the appropriate location in the register file 25b of the secondary instruction pipeline 18 to register file 25a in the primary pipeline 16 and then add the video data to the result stored in the primary pipeline register file 25a to obtain the final result.

3. Claims 4-8,10,14-20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Young whose telephone number is 571-272-1816. The examiner can normally be reached on Mon-Fri 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brian Young
Primary Examiner
Art Unit 2819
